



NASA/GODDARD SPACE FLIGHT CENTER
GREENBELT, MARYLAND 20771

DATE:

2/2/00

TOTAL # OF PAGES:

17

TO: (INCLUDING OFFICE CODE AND NAME)

STAN SCHNEIDER

FROM: (INCLUDING OFFICE CODE AND NAME)

JIM FROST

COMMENTS:

for C. MCGUIRE,

JIM FROST

301-286-6388

JAMES R. FROST, 1 @ GSFC, NASA GSU

THANKS!

send to project office 1/12

DTC CASE REFERRAL DOCUMENT

IN USE

DATE STAFFED:

DTC CASE

JAN 11 2000

TA-2102-99

APPLICANT: TRW INC.

VARIOUS

Advisory Opinion TA Agreement - [Mfg], [Tech Asslat], [Distribution]

Brokering Request

TRW

DTC CASE OFFICER:

EATON

DTC Comments:

SATELLITE

Recommendations and Comments Are Requested From:

☒ DTS/LD

☐ NEA/RA

☒ APM/ECNP

☒ NASA

☐ EAP/RSP

☐ OES

☐ ENERGY

☐ EUR/RPM

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☐ DTC/CEB

☐ COMMERCE

☐ SA/RA

☐ DTC/RAB

☐ L/PM

☐ DRL/MLA

☐ PKRC

☐
☐
☐
☒ Transmittal Letter

☐ Attachments, stated on appl

☐ Tech Data/Descrip Literature

☒ Statement of Work

☐ Order/Ltr of Intent/Contract

☒ Copy of Agreement

☐ Copy of previous Approval(s)

☐ End Use Certificate/DSP-83

☐ Import Authorization

☐ Other (videocassette, etc)

☐ Nothing

7 # of Collated Sets

REPLY HERE AND RETURN TO DEPARTMENT OF STATE, OFFICE OF DEFENSE TRADE CONTROLS, WASHINGTON, D.C. 20520-0206 Your response within 15 working days of date staffed is appreciated. PROVIDE COMMENTS FOR ANY RECOMMENDATION TO DENY OR RETURN WITHOUT ACTION (RWA).

RECOMMENDATION: ☐ APPROVE

☐ APPROVE WITH PROVISION

☐ DENY

☐ RWA

COMMENTS:

Typed/Printed NAME AND OFFICE SYMBOL

Signature

DATE:

Telephone Number



TRW Inc.

TRW Inc.
10000 North
17th Avenue
Denver, CO 80202
303.291.1000

TA 2102-99

December 3, 1999
99.A531.RJV.ARG.220

Applicant Code 1201-3913

Mr. William J. Lowell
Director
Office of Defense Trade Controls
DTC, SA-6, RM 200
U.S. Department of State
Washington, DC 20522-0602

Subject: Proposed Agreement between TRW Space & Electronics Group, Saab Ericsson Space AB of Sweden, Austrian Aerospace Ges.m.b.H of Austria, and TERMA Elektronik AS of Denmark for Technical Assistance Relating to the U.S. National Polar-orbiting Operational Environmental Satellite System

Dear Mr. Lowell:

The enclosed application relates to a proposed Technical Assistance Agreement (TAA), between TRW, Saab Ericsson of Sweden (Saab), Austrian Aerospace of Austria (AAE), and TERMA of Denmark to work on sensor interfaces as part of the Program Definition and Risk Reduction (PDRR) phase of the National Polar-orbiting Operational Environmental Satellite System (NPOESS).

NPOESS is jointly funded by the U.S. Air Force, NASA, and the National Oceanic and Atmospheric Administration and managed by an integrated program office (IPO). Designed to meet the needs of both civil and military users, NPOESS is the next-generation U.S. low-earth, polar orbiting meteorological satellite system.

Saab is already under contract with the NPOESS IPO for the Global Positioning System Occultation Sensor (GPSOS). TRW expects to receive one of two NPOESS PDRR prime contracts in December, 1999. A requirement of the prime contract is that TRW enter into an Associate Contractor Agreement with Saab in order to develop interface requirements that the TRW-built spacecraft will impose on the sensor. Saab is on contract with German-based Dornier Satellitensysteme to develop and produce an equivalent sensor for Europe's new weather monitoring satellite METOP.

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AAE and TERMA are subcontractors to Saab on GPSOS. AAE was founded in 1997, merging the two largest suppliers of space products and related ground support equipment in Austria, Schrack Aerospace and ORS. AAE is owned by Saab Ericsson Space (77.5%), Dornier Satellitensysteme (12.5%), and Austrian-based Ericsson Austria (10%). AAE is developing the channel processor and channel processor software for the NPOESS GPSOS breadboard sensor, engineering model sensor, and flight sensors.

TERMA has provided systems, software, and services to the space sector since the sixties. TERMA will handle the NPOESS GPSOS Ground Segment Follow Up to include monitoring, analysis and description of the impacts on the specification and future implementation of the dedicated GPSOS Ground Segment resulting from GPSOS development.

In accordance with 22 CFR 124.12, the following information is provided:

(a) (1) TRW Inc. DTC Applicant Code is 1201-3913.

(a) (2) Technical assistance and defense services will be provided to:

Saab Ericsson Space AB
SE-405 15 Goteborg
Sweden

Austrian Aerospace Ges.m.b.H
Stachegasse 16
A-1120 Wien
Austria

TERMA Elektronik AS
Bregnerodjvej 144
DK- 3460 Birkerod
Denmark

The technical assistance and technical data are described in the Statement of Work and Technical Interchange Summary (see Enclosure 2).

(a) (3) The technical data to be transferred was developed by TRW under the NPOESS ATSP F04606-95-D-0069 study, NASA's Earth Observing Spacecraft (EOS) Common Spacecraft contract NAS5-32954, and independent research & development projects.

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- (a) (4) No U.S. military security classified information will be transferred under this Agreement.
- (a) (5) No invention secrecy order has been issued by the U.S. Patent and Trademark Office with respect to this activity.
- (a) (6) The proposed Agreement is valued at \$150,000. U.S. Dollars for technical data and assistance. While no funding will actually flow from the TRW prime contract to Saab, the basis of the estimated value is the TRW labor required to develop the sensor interfaces.
- (a) (7) No foreign military sales credits or loan guarantees are, or will be, involved in financing this Agreement.
- (a) (8) No U.S. Government classified information will be provided under this Agreement.
- (a) (9) No U.S. Government classified information will be provided under this Agreement.

REQUIRED STATEMENTS

- (b) (1) If the agreement is approved by the Department of State, such approval will not be construed by TRW as passing on the legality of the Amendment from the standpoint of antitrust laws or other applicable statutes, nor will TRW construe the Department's approval as constituting either approval or disapproval of any of the business terms or conditions between the parties to the agreement.
- (b) (2) TRW will not permit the proposed agreement to enter into force until it has been approved by the Department of State.
- (b) (3) TRW will furnish the Department of State with one copy of the signed agreement within 30 days from the date that the agreement is concluded and will inform the Department of its termination not less than 30 days prior to expiration and provide information on the continuation of any foreign rights or the flow of technical data to the foreign party. If a decision is made not to conclude the proposed agreement, TRW will so inform the Department within 60 days.

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- (b) (4) If this agreement grants any right to sub-license, it will be amended to require that all sub-licensing arrangements incorporate all the provisions of the basic agreement that refer to the U.S. Government and the Department of State (i.e., 22 CFR 124.9 and 124.10).

To facilitate Government consideration of this request, the Agreement contains the following provisions currently required by the ITAR:

Pursuant to 22 CFR 124.7:

- 124.7(1) TAA Statement of Work - Exhibit A, TAA Technical Interchange Summary - Exhibit B, TAA Interface Requirements Document for NPOESS Spacecraft and Sensors - Exhibit C
- 124.7(2) Article I of TAA, TAA Statement of Work - Exhibit A, TAA Technical Interchange Summary - Exhibit B, TAA Interface Requirements Document for NPOESS Spacecraft and Sensors - Exhibit C
- 124.7(3) Article II - TAA
- 124.7(4) Preamble - TAA

Pursuant to 22 CFR 124.8:

- 124.8(1) Article IV(a)
- 124.8(2) Article IV(b)
- 124.8(3) Article IV(c)
- 124.8(4) Article IV(d)
- 124.8(5) Article IV(e)
- 124.8(6) Article IV(f)

This Agreement relates to U.S. Munitions List Categories XV (e), satellite parts and components, and (f) related technical data. These categories are not designated as Significant Military Equipment (SME). TRW does not intend to export hardware under this TAA; therefore, TRW is not requesting the use of the 22 CFR 123.16(b)(1) exemption for this Agreement.

The export of technical data and defense services under this Agreement will take place in the United States, Sweden, Austria, and Denmark. Transfer of technical data and defense services will be presented orally, by fax, by e-mail, or hand carried and delivered by TRW employees. Additional copies of hard copy data may be sent via DHL, Federal Express or equivalent express carriers.

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If you require additional information, please contact the undersigned at 310.813.5775 or Greg Creaser at 703.276.5088. For further technical information, please contact Ed Frazier at 310.812.0282. Should you wish to speak to someone on the program within the U.S. Government, please contract John M. Inman, NPOESS Contracting Officer, National Oceanic and Atmospheric Administration, at 301.427.2084, ext.162.

Sincerely,



Russell J. VanDegrift
TRW S&EG Export/Import Compliance Manager

Enclosures:

- 1) 126.13 Certification Letter
- 2) Proposed TAA

99.A531.RJV.ARG.220
December 3, 1999

Enclosure 1

126.13 Certification Letter



TRW Inc.

Accounts Office
1001 Thirteenth St North
Suite 300
Arlington, VA 22209
703.276.5100

December 3, 1999

Mr. William J. Lowell, Director
Office of Defense Trade Controls (PM/DTC)
U.S. Department of State
PM/DTC, SA-6, Room 200
Washington, DC 20520

Subject: Part 126 Certification Letter

Dear Mr. Lowell:

I, the undersigned, am a U.S. person as defined in 22 CFR 120.15 and am a responsible official empowered by the applicant to certify the following in compliance with 22 CFR 126.13:

- (1) Neither the applicant, its chief executive officer, president, vice presidents other senior officers or officials (e.g., comptroller, treasurer, general counsel) or any member of its board of directors is:
 - (a) the subject of an indictment for or has been convicted of violating any of the U.S. criminal statutes enumerated in 22 CFR 120.27 since the effective date of the Arms Export Control Act, Public Law 94-329, 90 Stat. 729 (June 30, 1976); or
 - (b) Ineligible to contract with, or to receive a license or other approval to import defense articles or defense services from, or to receive an export license or other approval from any agency of the U.S. Government.
- (2) To the best of the applicants knowledge, no party to the export as defined in Section 126.7 (e) has been convicted of violating any of the U.S. criminal statutes enumerated in 22 CFR 120.27 since the effective date of the Arms Export Control Act, Public Law 94-329, 90 Stat. 729 (June 30, 1976), or is ineligible to contract with, or to receive a license or other approval to import defense articles or defense services from, or to receive an export license or other approval from any agency of the U.S. Government; and
- (3) The natural person signing the application for license, notification or other request for approval is a responsible official who has been empowered by the applicant as defined in 22 CFR 120.25 and is a citizen of the United States.
- (4) I am a citizen of the United States.

Sincerely,

Russell J. VanDegrift
TRW S&EG Export/Import Compliance Manager

Name and Address of Consignor(s) in United States:

1. Hand-carried by TRW employee, or
2. TRW Space & Electronics Group
One Space Park
Redondo Beach, CA 90278
3. Arthur J. Fritz & Company
P. O. Box 92647
Los Angeles, CA 90009-9901
4. Fritz Air Freight
2580 Sante Fe Avenue
Redondo Beach, CA 90278
5. DHL Airways Inc.
4882 W. 145th Street
Hawthorne, CA 90250
6. Federal Express, Airborne Express, or equivalent air express
couriers
7. Danza
3700 Redondo Beach Avenue
Redondo Beach, CA 90278
8. BAX Global (formerly Burlington Air Express)
5500 West Century Blvd.
Los Angeles, CA 90045
9. BAX Global (formerly Burlington Air Express)
16808 Armstrong Avenue
Irvine, CA 92606
10. BAX Global (formerly Burlington Air Express)
Dept. LA 21047
Pasadena, CA 91185-1047
11. BAX Global (formerly Burlington Air Express)
5343 West Imperial Highway #1000
Los Angeles, CA 90045
12. FSI AIR Incorporated
5302 West 83rd Street
Los Angeles, CA 90045
13. International Logistics Services (I.L.S.)
343 North Oak Street
Inglewood, CA 90302
14. International Logistics Services (I.L.S.)
215 Long Beach Blvd., #321
Long Beach, CA 90802

99.A531.RJV.ARG.220
December 3, 1999

Enclosure 2

Proposed Technical Assistance Agreement

TECHNICAL ASSISTANCE AGREEMENT

This Agreement, effective as of the _____ day of _____, 2000, is between TRW Inc. (hereinafter called "TRW"), an Ohio corporation, having a place of business at One Space Park, Redondo Beach, California, 90278, United States of America; Saab Ericsson Space AB (hereinafter called "Saab"), having a place of business at SE-405 15 Goteborg, Sweden; Austrian Aerospace Ges.m.b.H., (hereinafter called "AAE"), having a place of business at Stachegasse 16, A-1120 Wien, Austria; and TERMA Elektronik AS, (hereinafter called "TERMA"), having a place of business at Gregnerodvej 144, DK-3460 Birkerod, Denmark.

WHEREAS, TRW has entered a prime contract with the U.S. Government for the Program Definition and Risk Reduction (PDRR) phase of the National Polar-orbiting Operational Environmental Satellite System (NPOESS) program, which requires TRW to develop technical plans, designs and analyses for the system which include the acquisition, integration and test of leveraged sensors and delivery of NPOESS sensor packages to other Government and international agencies; and

WHEREAS, Saab has entered a prime contract with the U.S. Government for development of technical plans, designs and analyses for the Global Positioning System Occultation Sensor (GPSOS); and

WHEREAS, Saab has selected principal subcontractors AAE to develop the channel processor and channel processor software for the NPOESS GPSOS sensors and TERMA to handle the NPOESS GPSOS Ground Segment Follow Up; and

WHEREAS, TRW, as prime contractor to the U.S. Government, will be required to transfer technical data developed under the prime contract to Saab and Saab's principal subcontractors, AAE and TERMA, in order to enable the parties to fulfill their contractual obligations to the Government; and

WHEREAS, TRW has developed certain technical data related to the NPOESS PDRR program using Independent Research & Development (IR&D) and other private funds disclosure of which to Saab, AAE and TERMA also will be necessary in order to fulfill the parties' prime contract obligations; and

WHEREAS, TRW, Saab, AAE and TERMA desire to exchange technical data, technical assistance and defense services relating to the NPOESS PDRR program in the United States, Sweden, Austria, and Denmark;

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties agree as follows:

I. Technical Assistance

TRW will provide technical data, technical assistance and defense services (hereinafter called "technical assistance") to Saab, Austrian Aerospace, and TERMA as set forth in the Statement of Work attached hereto as Exhibit A, the Technical Interchange Summary attached hereto as Exhibit B, and the Interface Requirements Document (IRD) for National Polar-orbiting Operational Environmental Satellite System (NPOESS) Spacecraft and Sensors attached hereto as Exhibit C.

The technical assistance provided by TRW to Saab, AAE, and TERMA shall not include the following:

- a. TRW proprietary software.
- b. U.S. classified military security information.

Saab, AAE, and TERMA agree to use the technical data and technical assistance only as specified in Article IV(e) hereof.

II. Term

Subject to Article IV(a), below, this Agreement shall commence on the date hereof and continue in force for four (4) years from the date hereof.

III. Security Requirements

No classified information will be transferred under this agreement. Nevertheless, this Agreement shall be subject to all applicable security requirements binding upon all parties.

IV. Required Clauses

In accordance with Title 22 of the U.S. Code of Regulations, Part 124, the following terms and conditions apply to this Agreement.

- a. This Agreement shall not enter into force, and shall not be amended or extended, without the prior written approval of the Department of State of the U.S. Government.
- b. This Agreement is subject to all United States laws and regulations relating to exports and to all administrative acts of the U.S. Government pursuant to such laws and regulations.
- c. The parties to this Agreement agree that the obligations contained in this Agreement shall not affect the performance of any obligations created by prior contracts or subcontracts which the parties may have individually or collectively with the U.S. Government.
- d. No liability will be incurred by or attributed to the U.S. Government in connection with any possible infringement of privately owned patent or proprietary rights, either domestic or foreign, by reason of the U.S. Government's approval of this Agreement.
- e. The technical data or defense service exported from the United States in furtherance of this Agreement and any defense article which may be produced or manufactured from such technical data or defense service may not be transferred to a person in a third country or to a national of a third country except as specifically authorized in this Agreement unless the prior written approval of the Department of State has been obtained.
- f. All provisions in this Agreement which refer to the United States Government and the Department of State will remain binding on the parties after termination of this Agreement.

V. Publication

No press release or other disclosure with respect to this Agreement or any activity in connection therewith will be made by any party except with the consent of all others.

VI. Proprietary Information

Except as otherwise provided in this Agreement, all information (except for (i) information that is otherwise in the public domain at the time of disclosure or thereafter through no fault of the receiving party, (ii) information that is known by the recipient at the time of disclosure or (iii) information disclosed to receiving party without restriction by a party that is not a party to this Agreement) disclosed by any party to another party hereunder will be held in strict confidence and safeguarded by the recipient to the same extent that the recipient safeguards its own proprietary information. Any such proprietary information disclosed by a party shall be used by the recipient only for the purposes set forth in this Agreement, but in no event shall the recipient use the proprietary information of a disclosing party for the manufacture or construction of any component without the express written consent of the disclosing party.

VII. Notice

Any notice given hereunder shall be mailed postage prepaid to the following respective addresses:

If to Saab to:	Saab Ericsson Space AB SE-405 15 Goteborg Sweden Attention: TBD
If to AAE to:	Austrian Aerospace Ges.m.b.H Stachegasse 16 A-1120 Wien Austria Attention: TBD
If to TERMA to:	TERMA Elektronik AS Bregnerodjvej 144 DK- 3460 Birkerod Denmark Attention: TBD
If to TRW, to:	TRW Space & Electronics Group TRW Inc. One Space Park Redondo Beach, CA 90278 United States of America Attention: Michael Leonard

or to such other address as either party shall have so notified to the other.

VIII. Assignment

No party will make any assignment of its rights or obligations hereunder in whole or in part, except as to the receipt of payments, without the consent of the other parties.

IX. Relationship

Except as may be expressly provided to the contrary herein, neither anything in this Agreement nor any acts of the parties shall create the relationship of principal and agent, or partners, or joint ventures, or of any equivalent association between the parties.

X. Limitation of Liability

In no event will any party hereto be liable to the other party for loss of profits or for any indirect, incidental, special, or consequential damages, however caused, whether as a consequence of the negligence of the one party or otherwise. No rights or obligations other than those expressly recited herein are to be implied from this Agreement. No party makes any warranty or representation as to information transmitted pursuant hereto.

XI. Miscellaneous

This Agreement constitutes the entire understanding and agreement of and among the parties with respect to the subject matter hereof, and supersedes all prior representations and agreements, verbal or written. This Agreement shall not be varied, except by an instrument in writing of subsequent date, duly executed by an authorized representative of each party. Paragraph headings herein are for convenience only and shall not limit in any way the scope or interpretation of any provision of this Agreement. The validity, construction, scope, and performance of this Agreement shall be governed by the laws of the State of New York, U.S.A., applicable to agreements made and to be performed wholly within such jurisdiction.

In witness whereof the parties have caused this instrument to be executed as of this _____ day of _____, 2000.

Saab Ericsson Space AB of Sweden

Austrian Aerospace Ges.m.b.H of Austria

By: _____

By: _____

Title: _____

Title: _____

TERMA Elektronik AS of Denmark

**TRW Inc.
TRW Space & Electronics Group**

By: _____

By: _____

Title: _____

Title: _____

Exhibit A to TAA

Statement of Work

Applicable to the Global Positioning System Occultation Sensor (GPSOS) for NPOESS

1. Allocate mission requirements to the space segment and subsystems, and identify associated cost/performance/supportability/risk/schedule sensitivities and trades.
2. Define GPSOS performance with sufficient maturity for a smooth transition to EMD to achieve the system requirements within cost and schedule constraints.
3. Define, coordinate, and obtain approval of internal and external interface requirements.
4. Conduct Cost as an Independent Variable (CAIV) trades, develop credible cost estimates for EMD, and provide information to support the development of government life cycle cost estimates.
5. Identify risk in critical areas, develop risk mitigation plans
6. Conduct logistics support analysis of the space segment operations for NPP and NPOESS. Conduct logistics support analysis, fully integrated within the systems engineering process, of the space, IDP and C3 segment operations of NPOESS to define support requirements. Implement the planning process and activities necessary to support test & evaluation (T&E) and subsequent EMD efforts.
7. Support the development of a test and evaluation program for government and contractor design test & evaluation (DT&E) and initial operations test & evaluation (IOT&E)
8. Develop plans to accept government directed, government developed, or government furnished equipment (e.g. sensors, algorithms)
9. Provide flexible and innovative management of program cost, schedule, performance, risks, contracts and subcontracts, and data required to deliver an effective and affordable system design.
10. Provide effective working relationships with the IPO, sensor contractors, other IPO suppliers, associate contractors, and external agencies.
11. Participate in working groups with the government and other IPO contractors and any sub-working groups that may arise, as appropriate.

Exhibit C to TAA**Detail for Technical Interchange Summary Item 4**

All NPOESS spacecraft and sensors interface requirements contained in Exhibit C:
*Interface Requirements Document (IRD) for National Polar-orbiting Operational
Environmental Satellite System (NPOESS) Spacecraft and Sensors*, and periodic revisions